

## NOTICE OF DRAFTSPERSON'S PATENT DRAWING REVIEW

PTO Draftpersons review all originally filed drawings regardless of whether they are designated as formal or informal. Additionally, patent Examiners will review the drawings for compliance with the regulations. Direct telephone inquiries concerning this review to the Drawing Review Branch, 703-305-8404.

The drawings filed (insert date) 5/3/95, are  
A. ☐ not objected to by the Draftsperson under 37 CFR 1.84 or 1.152.  
B. ☒ objected to by the Draftsperson under 37 CFR 1.84 or 1.152 as indicated below. The Examiner will require submission of new, corrected drawings when necessary. Corrected drawings must be submitted according to the instructions on the back of this Notice.

## 1. DRAWINGS. 37 CFR 1.84(a): Acceptable categories of drawings:

Black ink. Color.

☐ Not black solid lines. Fig(s) \_\_\_\_\_☐ Color drawings are not acceptable until petition is granted. Fig(s) \_\_\_\_\_

## 2. PHOTOGRAPHS. 37 CFR 1.84(b)

Photographs are not acceptable until petition is granted.

Fig(s) \_\_\_\_\_

☐ Photographs not properly mounted (must use bristol board or photographic double-weight paper). Fig(s) \_\_\_\_\_☐ Poor quality (half-tone). Fig(s) \_\_\_\_\_

## 3. GRAPHIC FORMS. 37 CFR 1.84 (d)

☐ Chemical or mathematical formula not labeled as separate figure. Fig(s) \_\_\_\_\_☐ Group of waveforms not presented as a single figure, using common vertical axis with time extending along horizontal axis. Fig(s) \_\_\_\_\_☐ Individuals waveform not identified with a separate letter designation adjacent to the vertical axis. Fig(s) \_\_\_\_\_

## 4. TYPE OF PAPER. 37 CFR 1.84(c)

☐ Paper not flexible, strong, white, smooth, nonshiny, and durable. Sheet(s) \_\_\_\_\_☒ Erasures, alterations, overwritings, interlineations, cracks, creases, and folds copy machine marks not accepted. Fig(s) 1-8☐ Mylar, velum paper is not acceptable (too thin). Fig(s) \_\_\_\_\_

## 5. SIZE OF PAPER. 37 CFR 1.84(f): Acceptable sizes:

21.6 cm. by 35.6 cm. (8 1/2 by 14 inches)

21.6 cm. by 33.1 cm. (8 1/2 by 13 inches)

21.6 cm. by 27.9 cm. (8 1/2 by 11 inches)

21.0 cm. by 29.7 cm. (DIN size A4)

☐ All drawing sheets not the same size. Sheet(s) \_\_\_\_\_☐ Drawing sheet not an acceptable size. Sheet(s) \_\_\_\_\_

## 6. MARGINS. 37 CFR 1.84(g): Acceptable margins:

Paper size

21.6 cm X 35.6 cm (8 1/2 X 14 inches)	21.6 cm X 33.1 cm (8 1/2 X 13 inches)	21.6 cm X 27.9 cm (8 1/2 X 11 inches)	21.0 cm X 29.7 cm (DIN Size A4)
T 5.1 cm. (2")	2.5 cm. (1")	2.5 cm. (1")	2.5 cm.
L .64 cm. (1/4")	.64 cm. (1/4")	.64 cm. (1/4")	2.5 cm.
R .64 cm. (1/4")	.64 cm. (1/4")	.64 cm. (1/4")	1.5 cm.
B .64 cm. (1/4")	.64 cm. (1/4")	.64 cm. (1/4")	1.0 cm.

Margins do not conform to chart above

Sheet(s) 4-6-8Top (T) \_\_\_\_\_ Left (L) ☒ Right (R) \_\_\_\_\_ Bottom (B) \_\_\_\_\_

## 7. VIEWS. 37 CFR 1.84(h)

REMINDER: Specification may require revision to correspond to drawing changes.

☐ All views not grouped together. Fig(s) \_\_\_\_\_☐ Views connected by projection lines or lead lines. Fig(s) \_\_\_\_\_

Partial views. 37 CFR 1.84(h) 2

☐ View and enlarged view not labeled separately or properly. Fig(s) \_\_\_\_\_

Sectional views. 37 CFR 1.84 (h) 3

☐ Hatching not indicated for sectional portions of an object. Fig(s) \_\_\_\_\_☐ Cross section not drawn same as view with parts in cross section with regularly spaced parallel oblique strokes. Fig(s) \_\_\_\_\_

## 8. ARRANGEMENT OF VIEWS. 37 CFR 1.84(i)

☐ Words do not appear on a horizontal, left-to-right fashion when page is either upright or turned so that the top becomes the right side, except for graphs. Fig(s) \_\_\_\_\_

## 9. SCALE. 37 CFR 1.84(k)

☐ Scale not large enough to show mechanism with crowding when drawing is reduced in size to two-thirds in reproduction. Fig(s) \_\_\_\_\_☐ Indication such as "actual size" or scale 1/2" not permitted. Fig(s) \_\_\_\_\_

## 10. CHARACTER OF LINES, NUMBERS, &amp; LETTERS. 37 CFR 1.84(l)

☒ Lines, numbers & letters not uniformly thick and well defined, clean, durable, and black (except for color drawings). Fig(s) 4-6

## 11. SHADING. 37 CFR 1.84(m)

☐ Solid black shading areas not permitted. Fig(s) \_\_\_\_\_☐ Shade lines, pale, rough and blurred. Fig(s) \_\_\_\_\_

## 12. NUMBERS, LETTERS, &amp; REFERENCE CHARACTERS. 37 CFR 1.84(p)

☒ Numbers and reference characters not plain and legible. 37 CFR 1.84(p)(1) Fig(s) 4-6☐ Numbers and reference characters not oriented in same direction as the view. 37 CFR 1.84(p)(1) Fig(s) \_\_\_\_\_☐ English alphabet not used. 37 CFR 1.84(p)(2) Fig(s) \_\_\_\_\_☒ Numbers, letters, and reference characters do not measure at least .32 cm. (1/8 inch) in height. 37 CFR(p)(3) Fig(s) 4-6

## 13. LEAD LINES. 37 CFR 1.84(q)

☐ Lead lines cross each other. Fig(s) \_\_\_\_\_☐ Lead lines missing. Fig(s) \_\_\_\_\_

## 14. NUMBERING OF SHEETS OF DRAWINGS. 37 CFR 1.84(t)

☐ Sheets not numbered consecutively, and in Arabic numerals, beginning with number 1. Sheet(s) \_\_\_\_\_

## 15. NUMBER OF VIEWS. 37 CFR 1.84(u)

☐ Views not numbered consecutively, and in Arabic numerals, beginning with number 1. Fig(s) \_\_\_\_\_☐ View numbers not preceded by the abbreviation Fig. Fig(s) \_\_\_\_\_

## 16. CORRECTIONS. 37 CFR 1.84(w)

☐ Corrections not made from prior PTO-948. Fig(s) \_\_\_\_\_

## 17. DESIGN DRAWING. 37 CFR 1.152

☐ Surface shading shown not appropriate. Fig(s) \_\_\_\_\_☐ Solid black shading not used for color contrast. Fig(s) \_\_\_\_\_

## COMMENTS:

1807/435/6

Sisson  
1 of 8

FIG. 1a

CELLS  
WITHIN  
CLINICAL  
SAMPLE



STEP 1

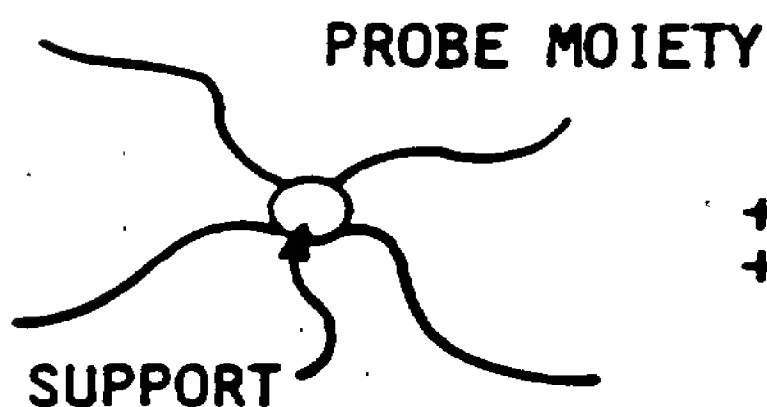
SOLUBLIZING AGENTS  
& DENATURATION  
OF NUCLEIC ACID

SAMPLE NUCLEIC ACID & CELLULAR DEBRI & IMPURITIES

STEP 2

RETRIEVABLE SUPPORT  
WITH PROBE MOIETY

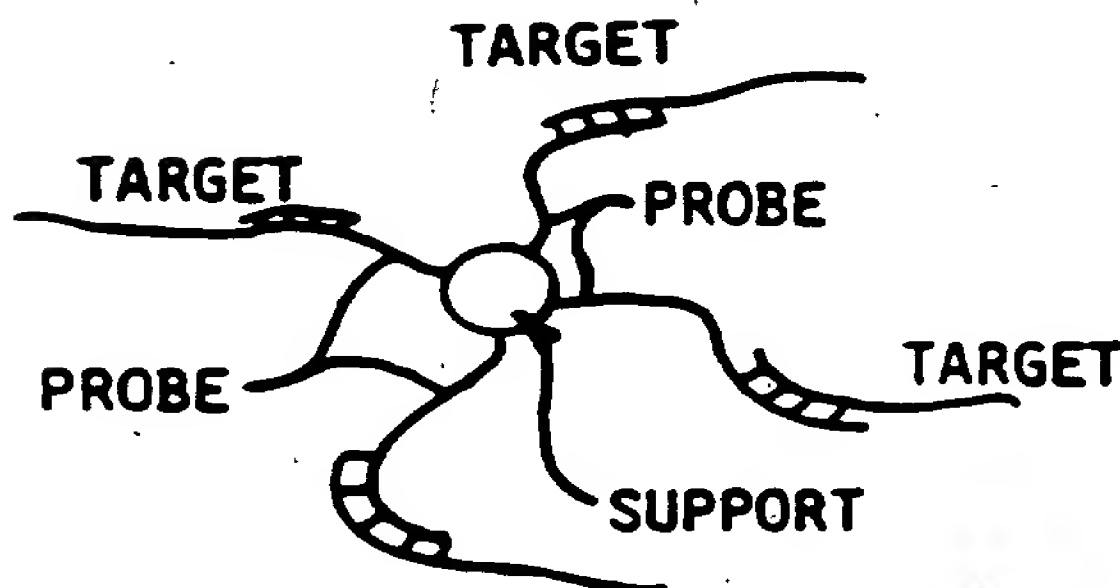
SAMPLE  
NUCLEIC ACID +



+ CELLULAR DEBRIS  
+ IMPURITIES

STEP 3

BINDING CONDITIONS



+ LARGE AMOUNT OF  
DNA  
RNA  
CELLULAR DEBRIS  
IMPURITIES

STEP 4

FIG. 1b

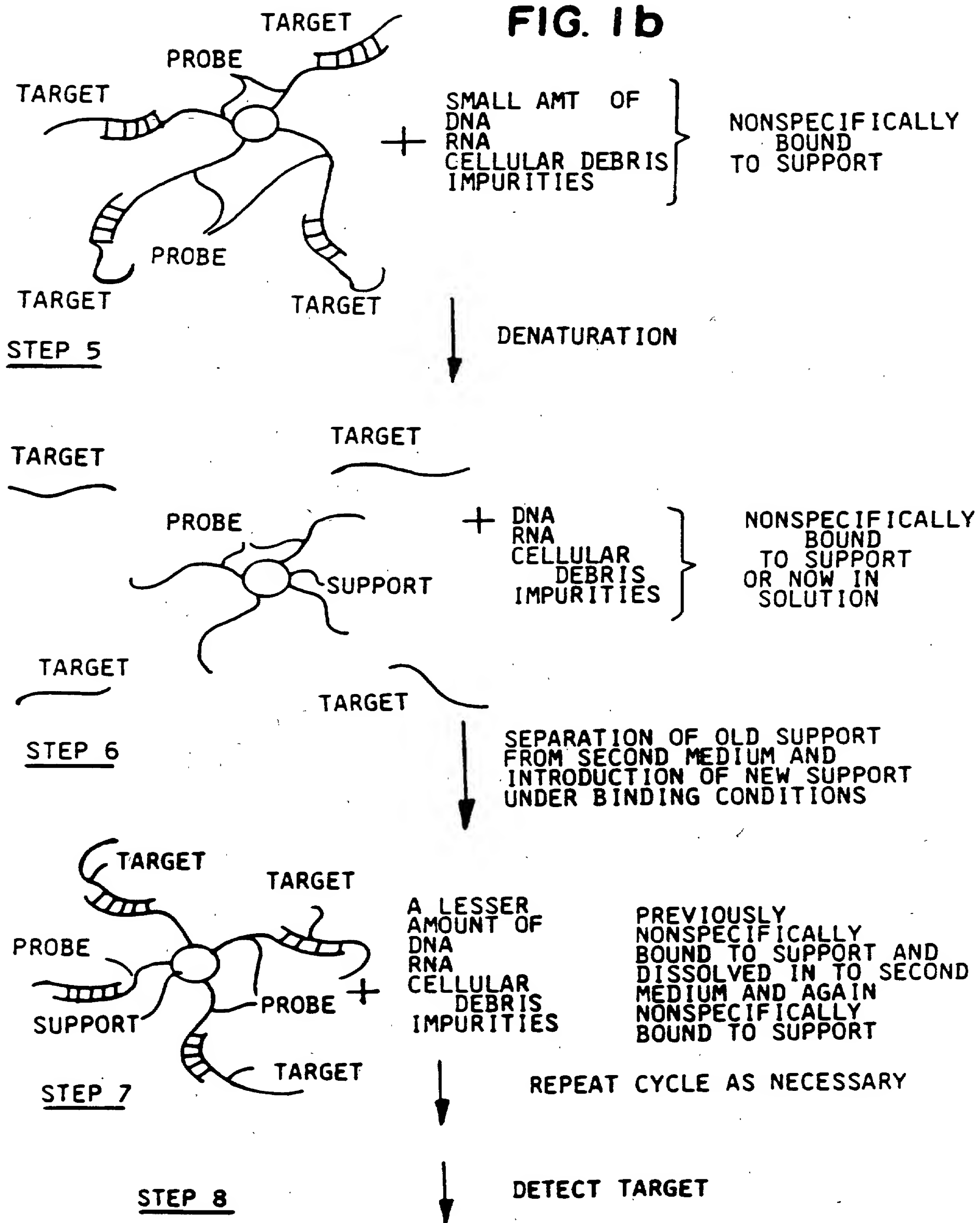
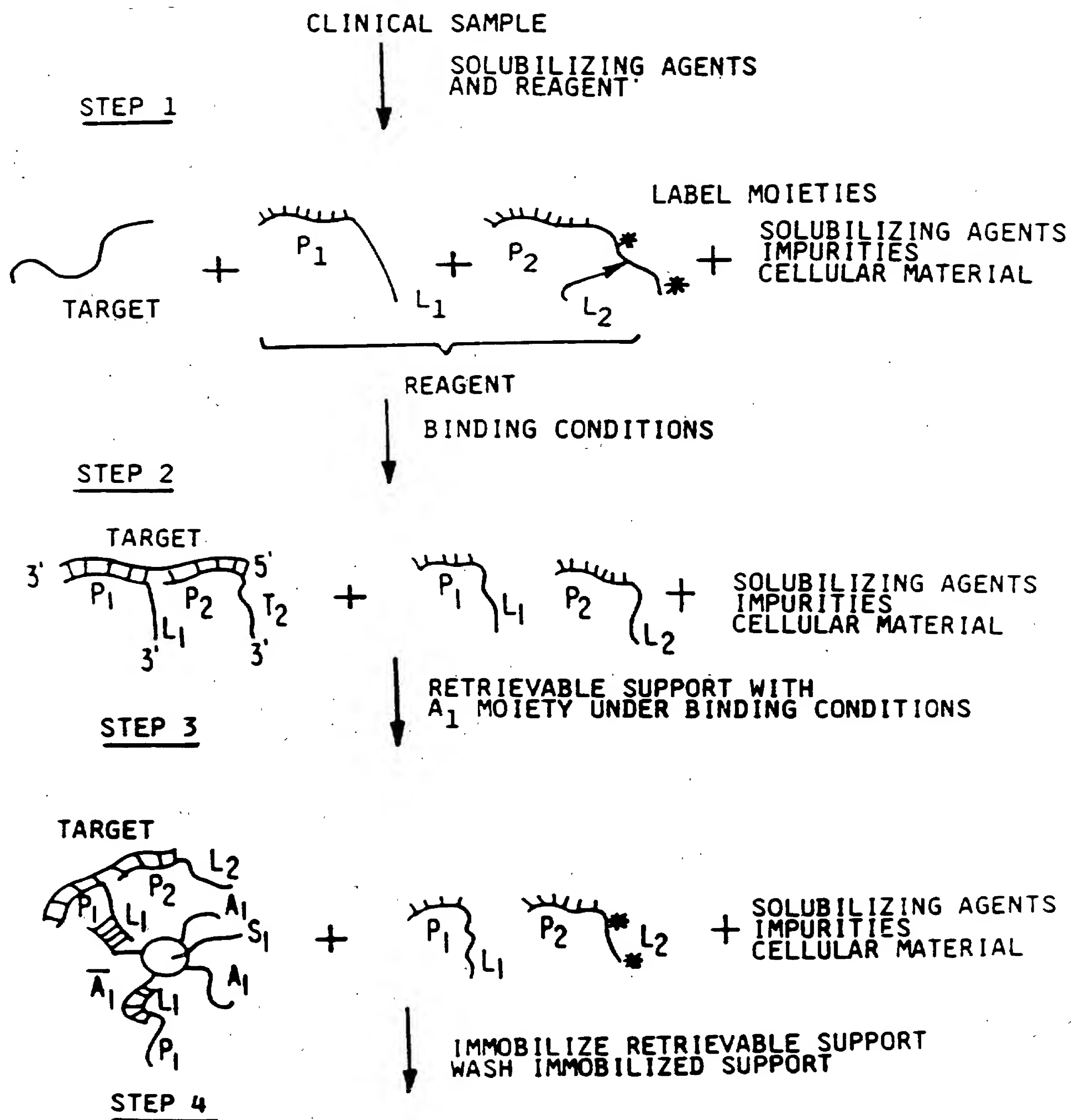


FIG. 2a



16E0501 0808E280

FIG. 2b

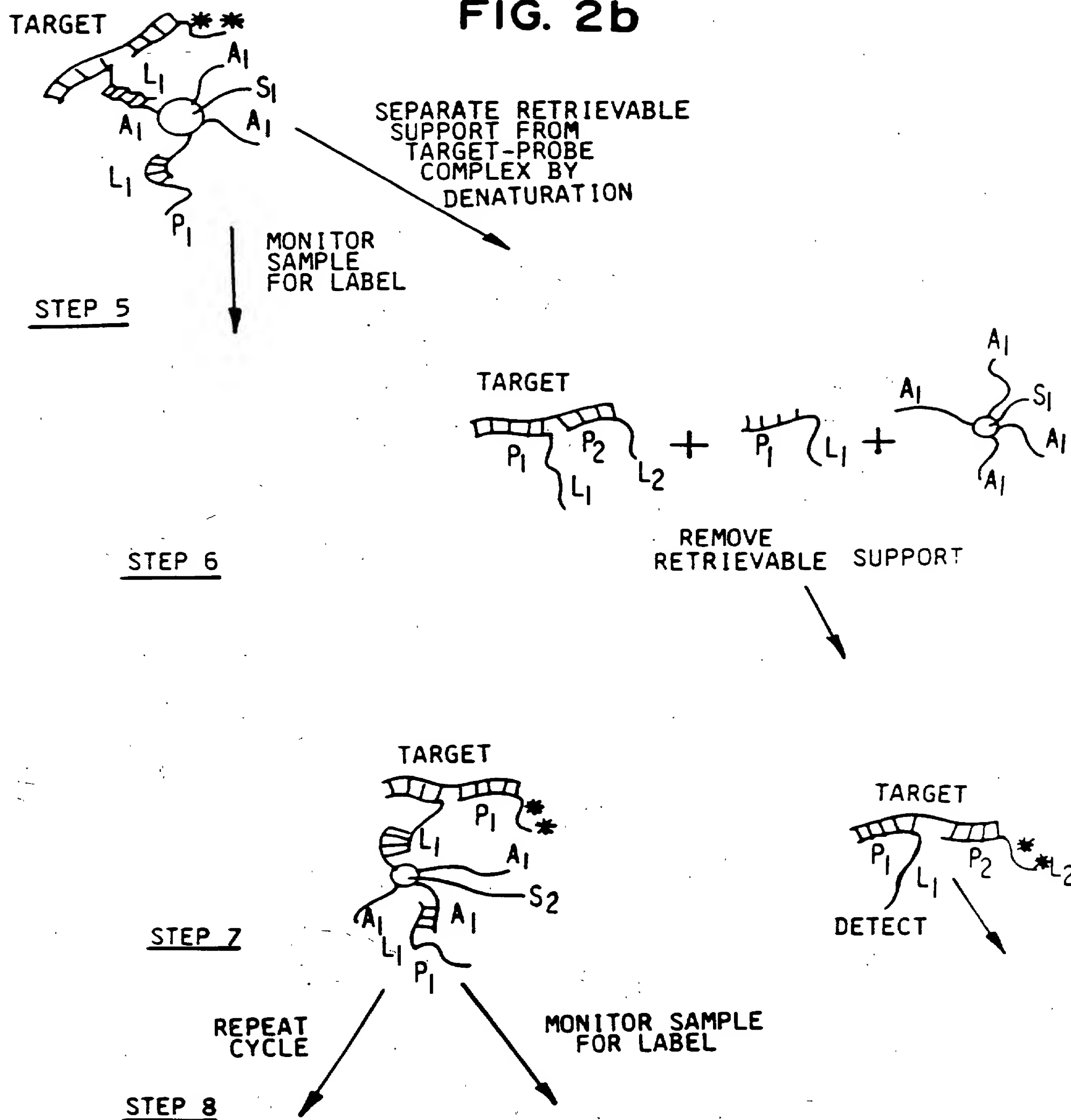
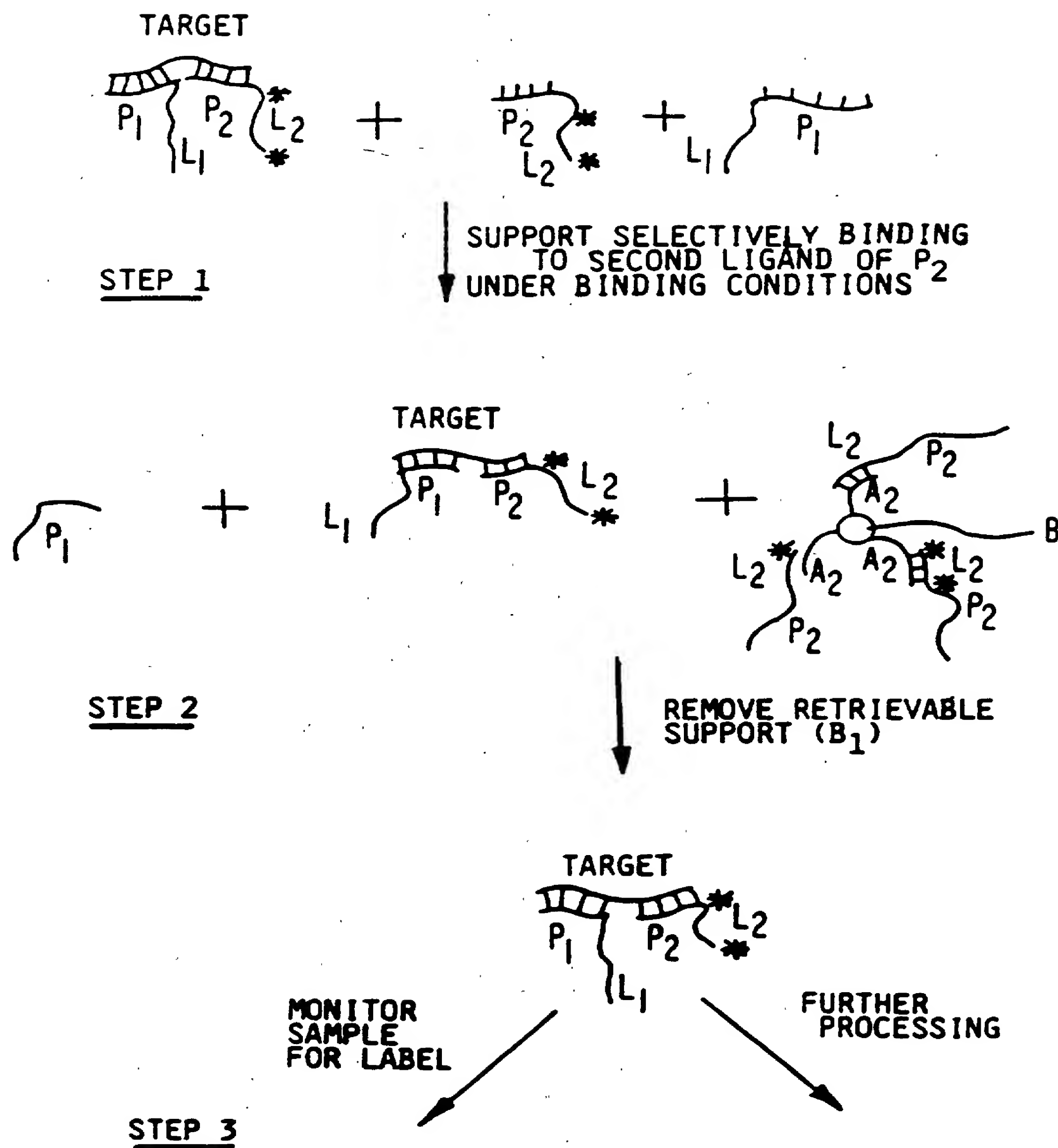


FIG. 3



Target DNA in rough sample

Step 1

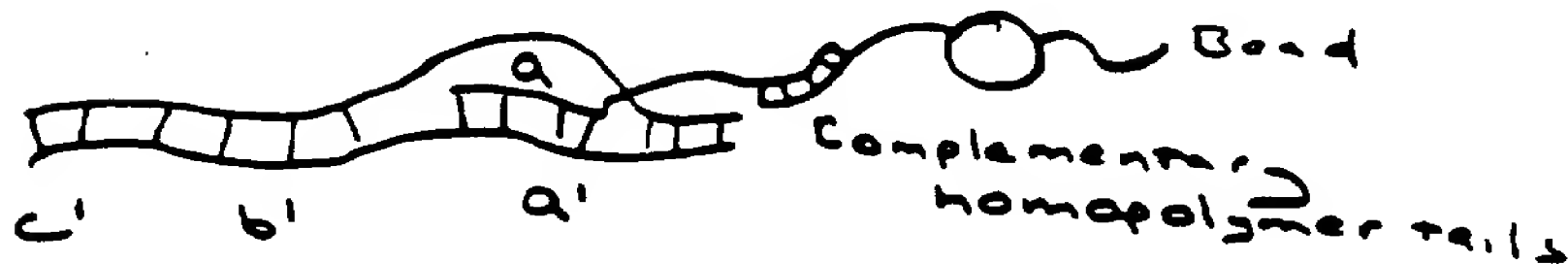
Capture probe

Capture bead

Binding conc. 10<sup>-5</sup>

A protein

238080



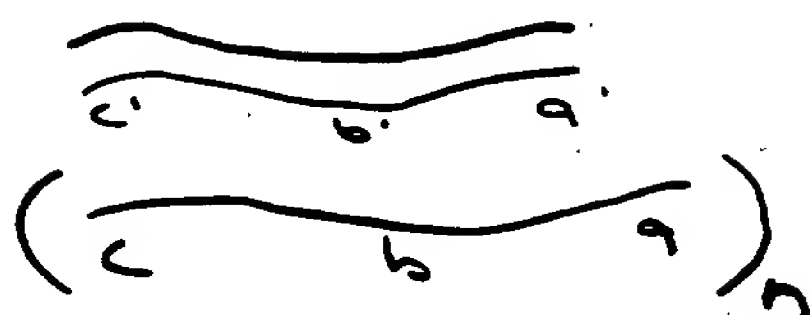
Step 2

isolate beads

target DNA (substantially free of sample  
impurities, debris, extraneous  
polynucleotides)

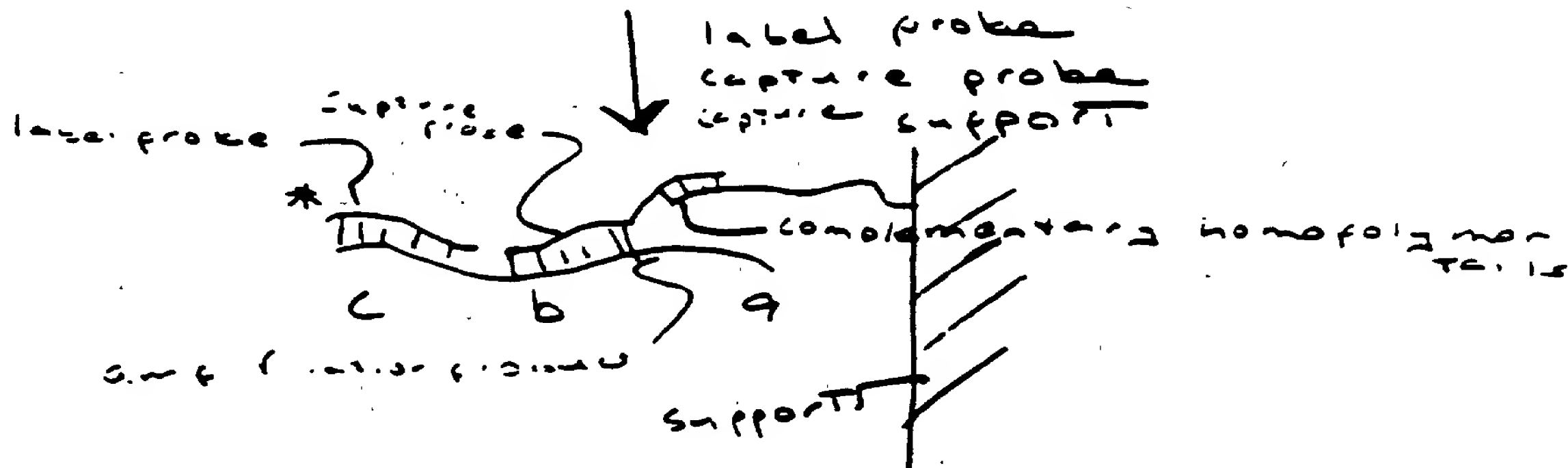
Step 3

core RNA polymerase  
Low salt buffer

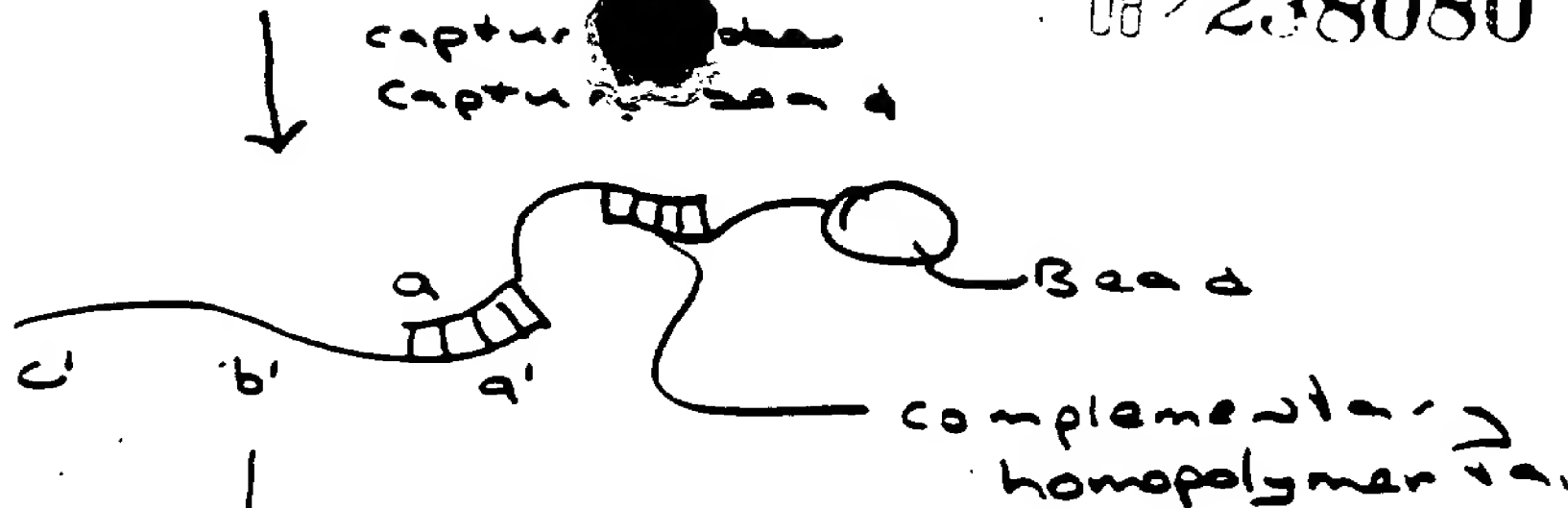


target DNA

RNA complementary to target DNA



Step 1



Step 2

isolate beads

Target DNA (substantially free of sample inhibitors, debris, extraneous polynucleotides)

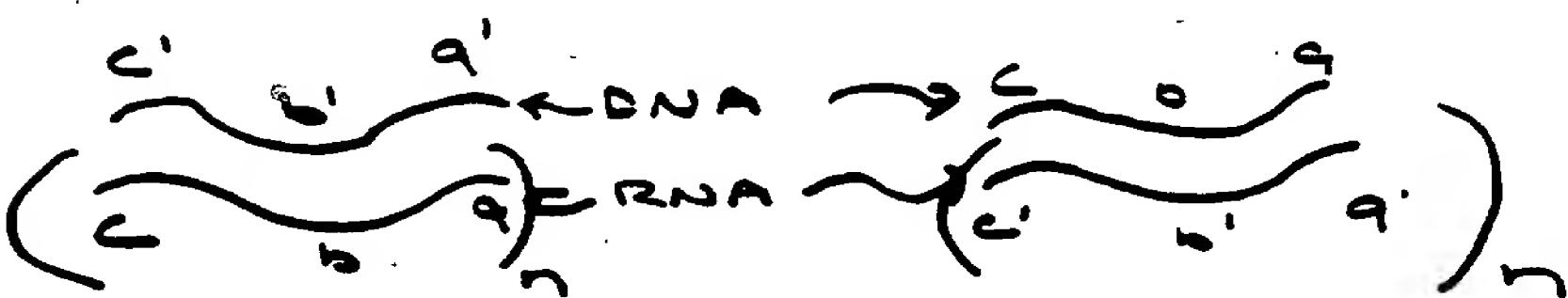
Step 3a

DNA polymerase  
hexamer primers



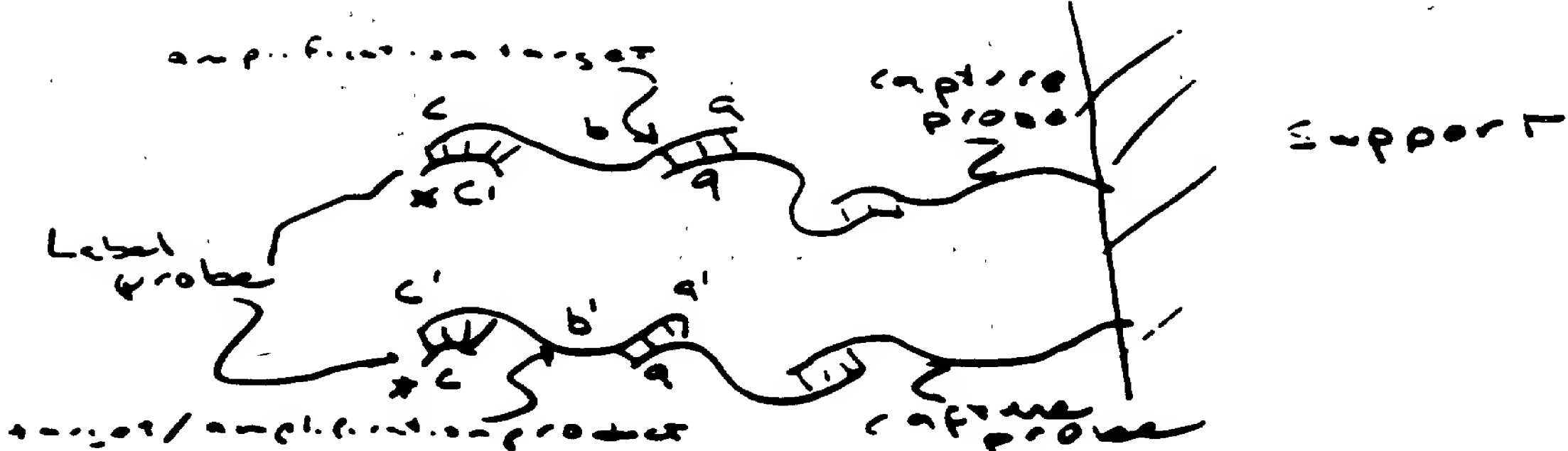
Step 3b

core RNA polymerase  
low salt buffer



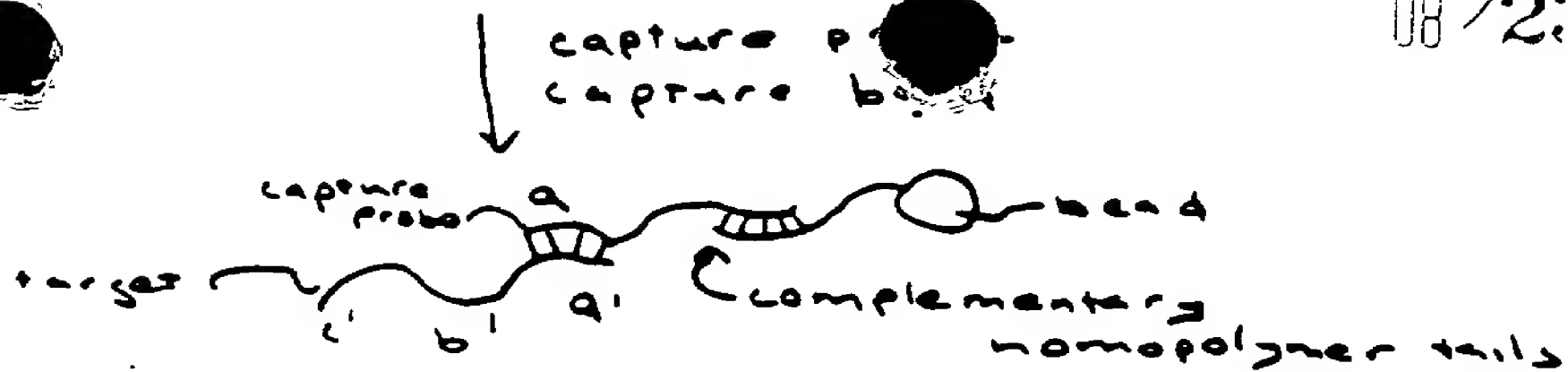
Step 4

labelled probe  
capture probe  
support





Step 1



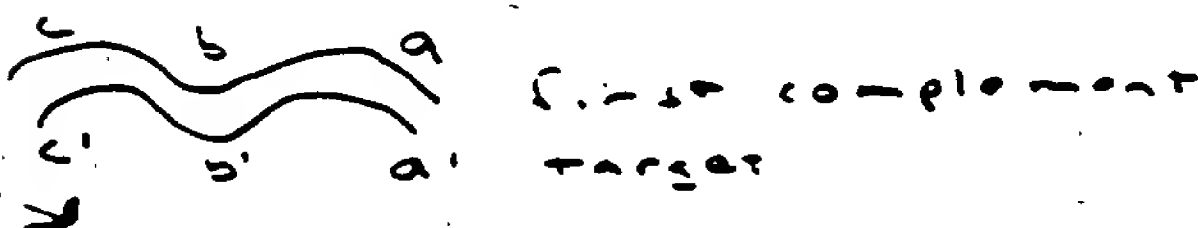
Step 2

isolate bead

Target DNA (substantially free of sample  
impurities, debris, and extraneous  
polynucleotides)

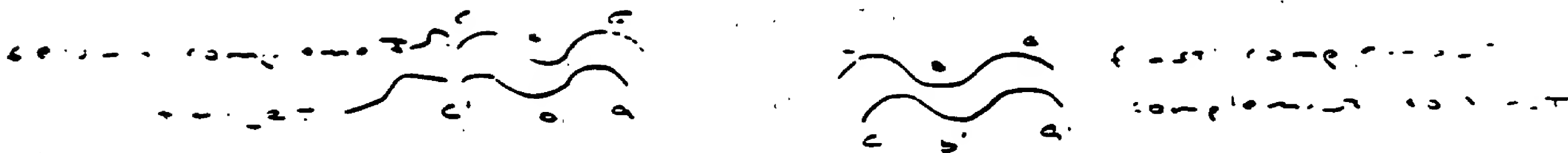
Step 3a

DNA polymerase  
Homo-primers



Step 3b

denature  
DNA polymerase



denature  
label probe  
capture support  
capture probe

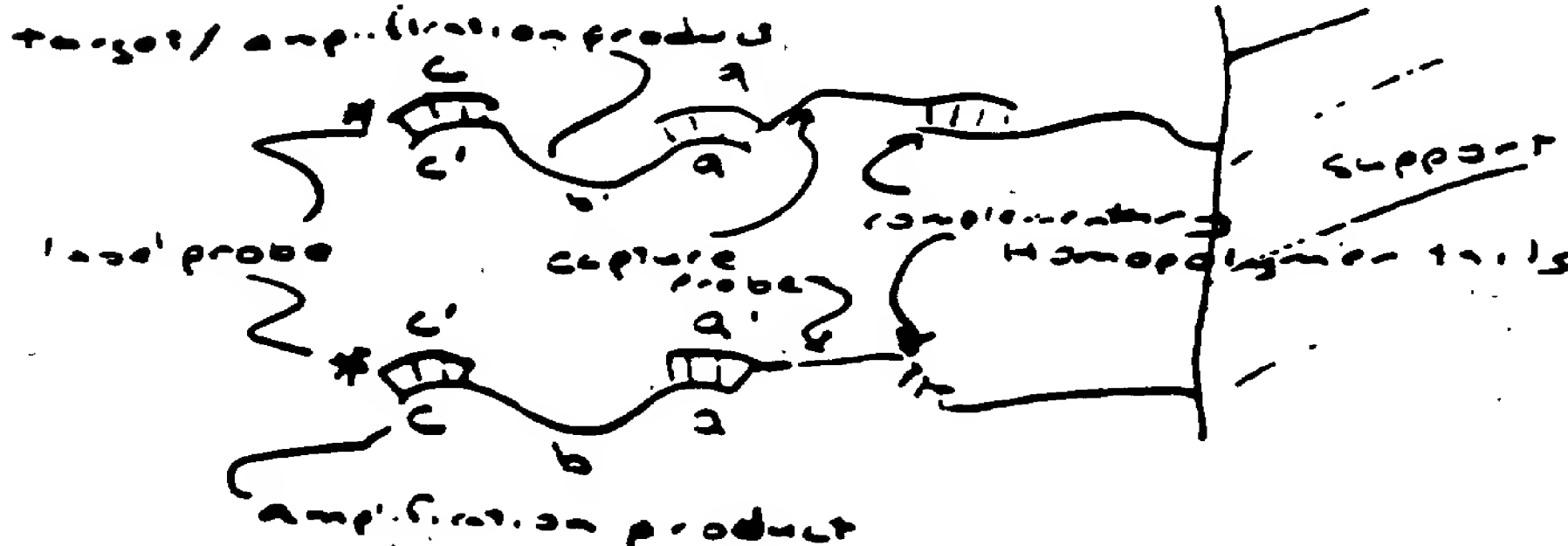
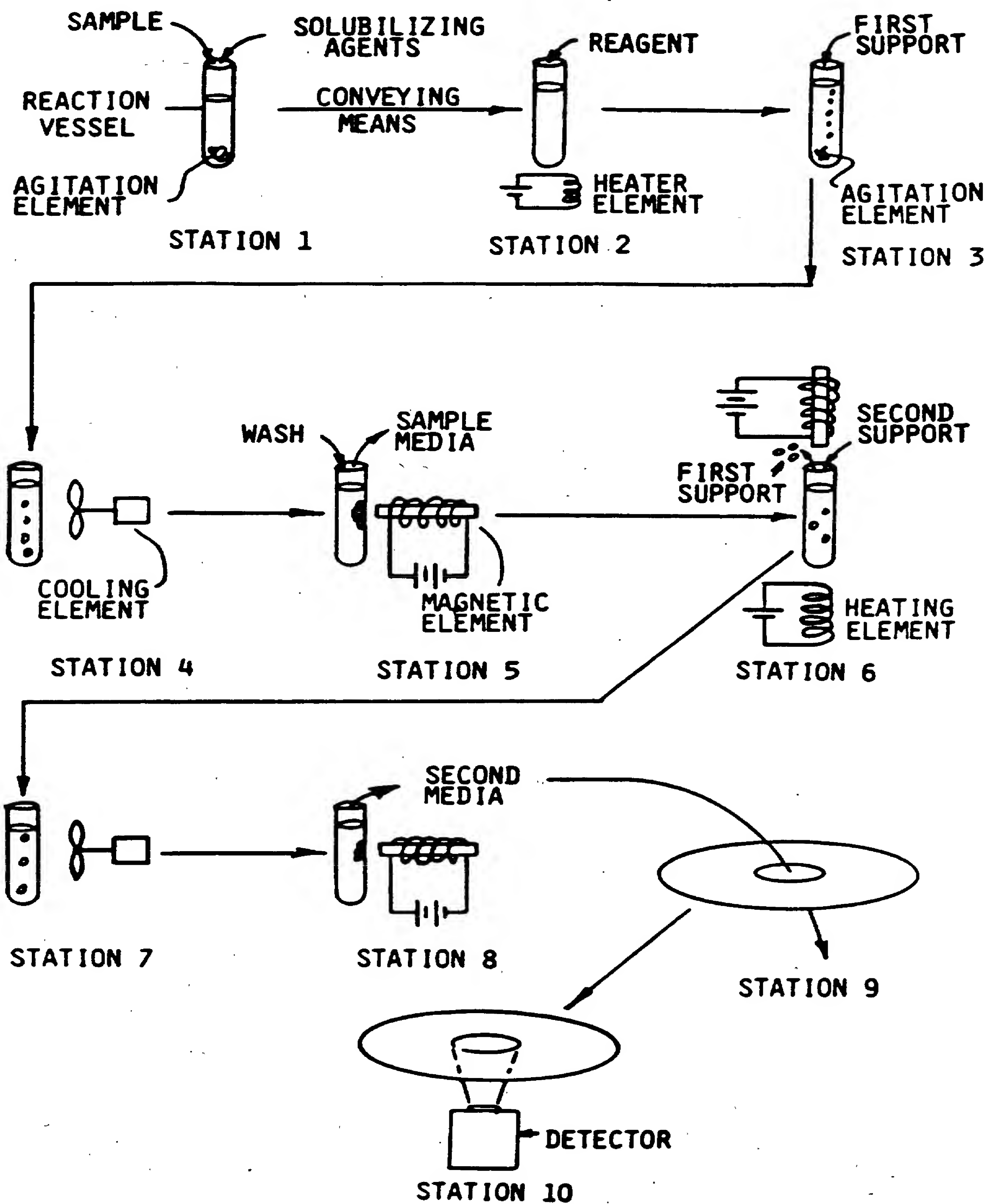
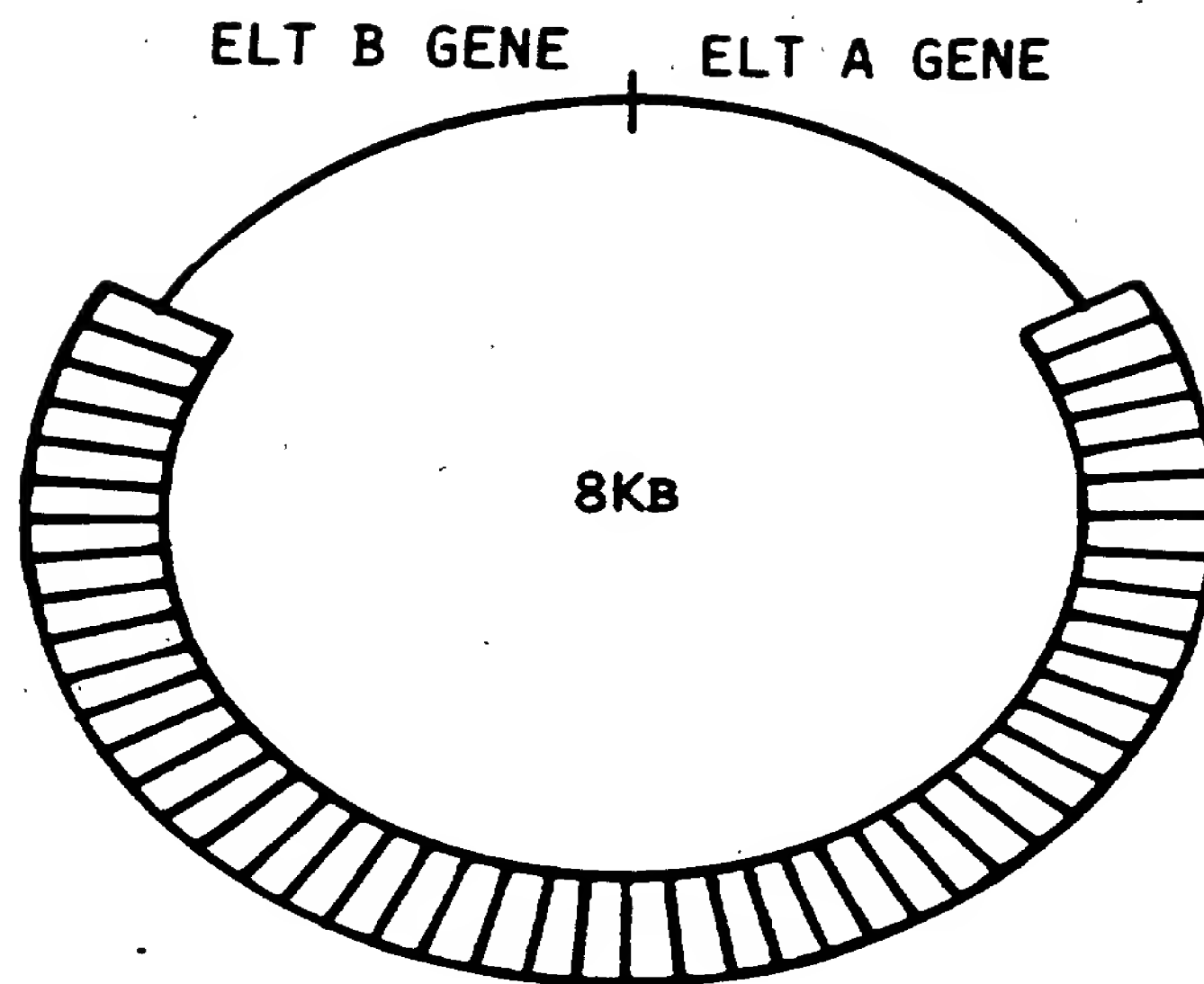


FIG. 7

454050-0802E200



440050-0808080



PBR322- LIKE SEQUENCES

FIG. 8